

SATO

LM400e Series



Quick Guide



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Be sure to ask your dealer about our maintenance contracts
to ensure peace of mind during your usage of SATO products

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Warning: This equipment complies with the requirements in Part 15 of FCC rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps are necessary to correct the interference.

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Version: SI-LM4xxe-01rA-16-01-OM

Features of LM400e Series

The LM400e Series – the rugged industrial generation of high performance printers with high resolution capabilities. The LM400e is a user-friendly printer providing high throughput and print speed in barcode label production.

Superior print performance

The LM400e ensures high print quality, enlarges and prints various types of fonts in a free layout.

Operation panel and LCD display

The LM400e is user-friendly and operable using two keys on the operation panel. The instruction messages to be displayed on the LCD screen will show you how to use this printer.

Durability and easy handling

The LM400e Series printers feature a heavy-duty print mechanism for barcode label production in large quantity and ensure great durability. An easy care and cleaning step are provided for daily use.

Safety Precautions

This Quick Guide contains important information for safety of the user.

To insure proper use, please read these Safety Precautions before using this product.

Pictograph Descriptions

The following pictograph descriptions are used in this Quick Guide and on the printer for safety of the user and others as well as the prevention of damage or loss to property. Descriptions for the pictographs and symbols used in these instructions are included below. Make sure you understand them before reading the main text.



Warning

This indicates that there is a strong likelihood that improper handling will lead to serious injury or even death.



Caution

This indicates that improper handling poses a strong risk of injury to the user or damage to property.

Meaning of pictographs



: Improper handling may cause electric shock.



: Improper handling may lead to serious injury.



: Prohibited (restricted) actions.



: Disassembly prohibited.



: Do not dispose the printer by fire, or expose it to heat, or put in fire.



: Unplug the printer from power outlet.



: Connect ground wire to ground slot.



Warning



: Place the printer on a surface that is flat and level

Do not leave the printer on unstable surfaces. If the printer falls and hits someone, it could cause injury.



: Do not expose the printer to liquids or moisture

Do not place objects filled with liquids, such as beverages, vases, or chemical product near the printer. Also, do not place small metal objects near the printer. If the liquids have been spilled or objects have fallen into the printer, turn off the power immediately, disconnect the power cord from the power outlet, and contact your nearest dealer, service center or the store where you purchased the printer. Continue use of the printer in this condition may cause fire or electric shock.



: Do not insert foreign material into the printer

Do not insert or drop any metal objects or flammable objects into the openings (cable end, socket for interface connection). If the foreign material has fallen into the printer, turn off the power immediately, disconnect the power cord from the power outlet, and contact your nearest dealer or service center or the store where you purchased the printer. Continue use of the printer in this condition may cause fire or electric shock.





: Use only the designated electrical power and voltage

Use the type of power source indicated on the printer. Different voltage may cause fire or electric shock.



: Connect ground wire

Make sure to connect the ground wire of the printer to the ground slot. Failure to do so may cause electric shock.



Warning



: Power cord

Do not attempt to damage, break, or modify the power cord. Also, avoid placing a heavy object on, heating, or pulling the power cord.



This may damage the power cord causing fire and electric shock.



If the power cord becomes damaged in any way (exposed cable core, breaking of wire), contact your nearest dealer, service center or the store where you purchased the printer. Continue use of damaged power cord may cause fire or electric shock.

Do not attempt to modify, jerk, knot, sharply bend, or otherwise abuse the power cord. Continue use of damaged power cord may cause fire or electric shock.



: In case of drop or damage

If the printer was dropped or damaged, turn off the power immediately, disconnect the power cord from the power outlet, and contact your nearest dealer, service center or the store where you purchased the printer. Continue use of the printer in this condition may cause fire or electric shock.



: Do not use the printer in abnormal condition

In the case of abnormalities such as smoke or foul odors from the printer, stop using the printer immediately. Continue use of the printer in this condition may cause fire or electric shock. Turn off the power immediately, disconnect the power cord from the power



outlet, and contact your nearest dealer, service center or the store where you purchased the printer. Do not attempt to repair the printer yourself.



: Do not disassemble



Do not attempt to disassemble or modify the printer. Fire or electric shock may occur. For service and repair of internal problem, please contact your nearest dealer or service center or the store where you purchased the printer for assistance.



Caution



: Do not use in locations with high humidity

Do not place the printer in any places where it will be subjected to high humidity or condensation.

If condensing, turn off the power switch immediately, stop using it and dry completely without using any heat producing devices. Continued use under these conditions may cause electric shock.



: Carrying the printer



Disconnect the power cord from a power outlet before moving the printer to other places. Leaving it connected and moving the printer will damage to the cord and connections. This may cause fire or electric shock.



Do not carry the printer when the label is set. If the label falls and hits someone, it could cause injury.

When placing the printer on the floor or the table, be careful not to get your fingers or hands caught in the legs of the printer.



: Power supply

Do not touch the power switch, replace the fuse, or plug-in/unplug the power cord with wet hands. This may cause electric shock.



: Power cord



Keep the power cord out of any appliances that produce heat. This may melt the coating of power cord and cause fire or electric

shock.

When disconnecting the power cord from the printer or a power outlet, pull on the plug. If not, it may cause exposure of wire, breaking of wire, overheating, fire or electric shock.



: Replacing fuse

Disconnect the power cord from a power outlet before replacing the fuse.



: Cover

When opening/closing the cover, be careful not to get your fingers caught. Hold the cover tightly and stop it from dropping down.



: Thermal head

Thermal head will become hot during the printing process. When changing carbon ribbon and labels or when cleaning after printing, be careful not to get burnt.



Contact with the edge of thermal head with bare hands may cause injury. When changing the carbon ribbon and labels or when cleaning, be careful not to get injured.

Do not replace the thermal head by yourself. Doing so may result in injuries, burns or electric shock.



: Opening and closing thermal head

Do not insert foreign material other than carbon ribbon and labels when opening/closing the thermal head. This may result in injury or malfunction.



: Setting labels

When setting the roll labels, please be careful not to get your fingers caught between the label and label supply spindle.



: When unused for long periods of time

Disconnect the power cord from a power outlet when unused for long periods of time.



: Maintenance and cleaning

Disconnect the power cord from a power outlet when maintaining or cleaning the printer.

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Precautions for installation and handling

Printer operation can be affected by the printer environment.

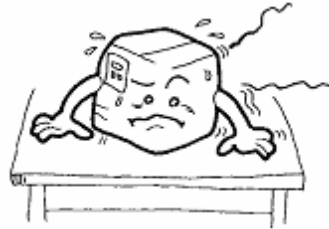
Refer to the following instructions for installation and handling of LM400e.

Select a safe location

When selecting a location for installation of LM400e, consider the following topics.

Place the printer on a surface that is flat and level

If the surface is not flat and level, this may result in poor print quality. This may also cause malfunction and shorten the life span of the printer.



Do not place the printer on a location that produces vibration

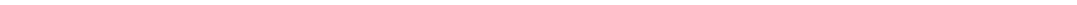
Do not carry the printer when the roll label is set. Giving serious vibration or shock to the printer may cause malfunction and shorten the life span of the printer.



Keep the printer out of high temperature and humidity

Avoid locations subject to extreme or rapid changes in temperature or humidity. Exposure to these conditions may cause Electrical problems within the printer.





Avoid dust

Dust buildup may result in poor print quality.

This may cause not only malfunction but also shorten the life span of the printer.

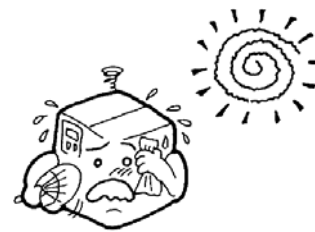


Keep out of direct sunlight

This printer has a built-in optical sensor.

Exposure to direct sunlight will make the sensor less responsive and may cause the label to be sensed incorrectly.

Close the cover when printing.

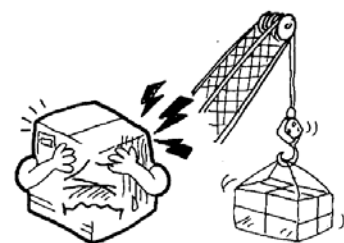


Do not place the printer near crane or pressing machine.

Machineries such as crane and pressing machine require large amount of power.

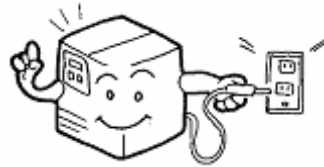
This may cause electrical noise or voltage reduction.

Avoid such locations to reduce the risk of malfunction or damage to the printer.



Power supply

The LM400e Series require AC110-220V.



Provide a stable source of electricity to the printer

Do not share the power outlets with other appliances such as a heater and refrigerator requiring a measurable amount of power.

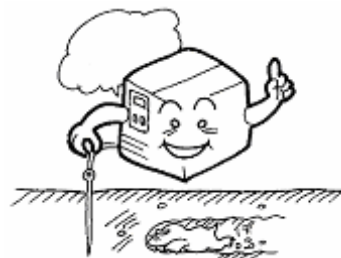
Also, avoid using the power outlet near such appliances are plugged into.

This may cause voltage reduction and malfunction.



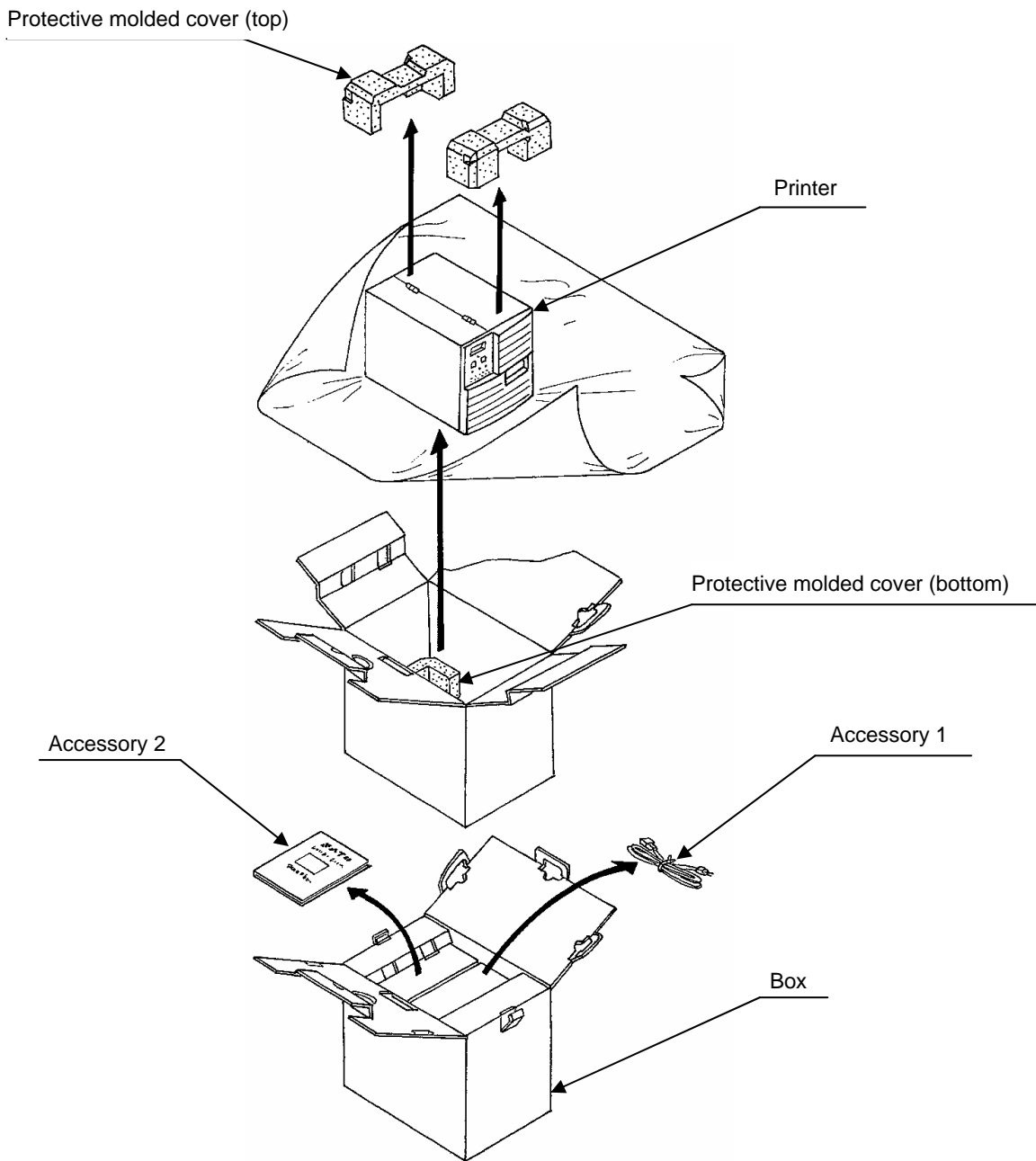
Connect the power cord to a grounded power outlet

Make sure to have the facility equipped with the ground slot.



Unpacking

Taking the LM400e from the box and removing the protective molded cover and plastic cover, it is ready for installation.

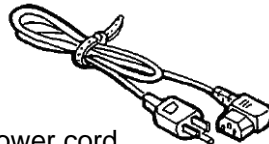


Accessories

Make sure you have received all of the following items in this package.

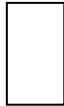
If there are any accessories missing, contact your nearest dealer or the store where you purchased the printer.

Power cord



Power cord

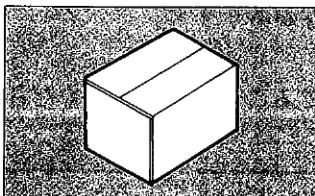
Quick Guide



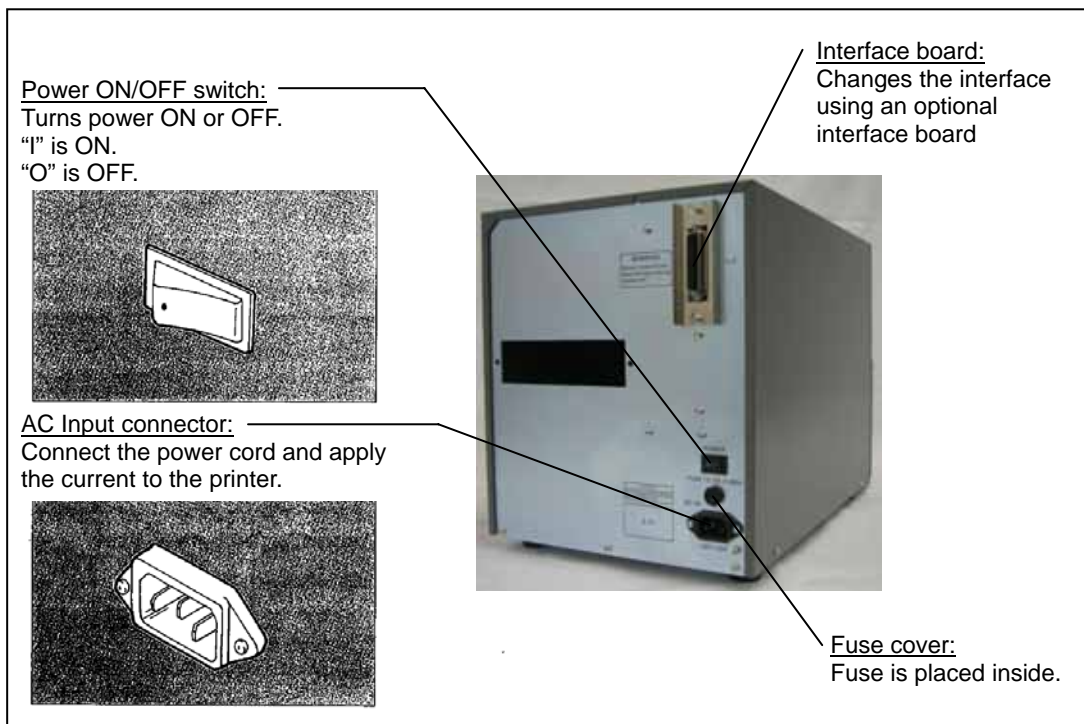
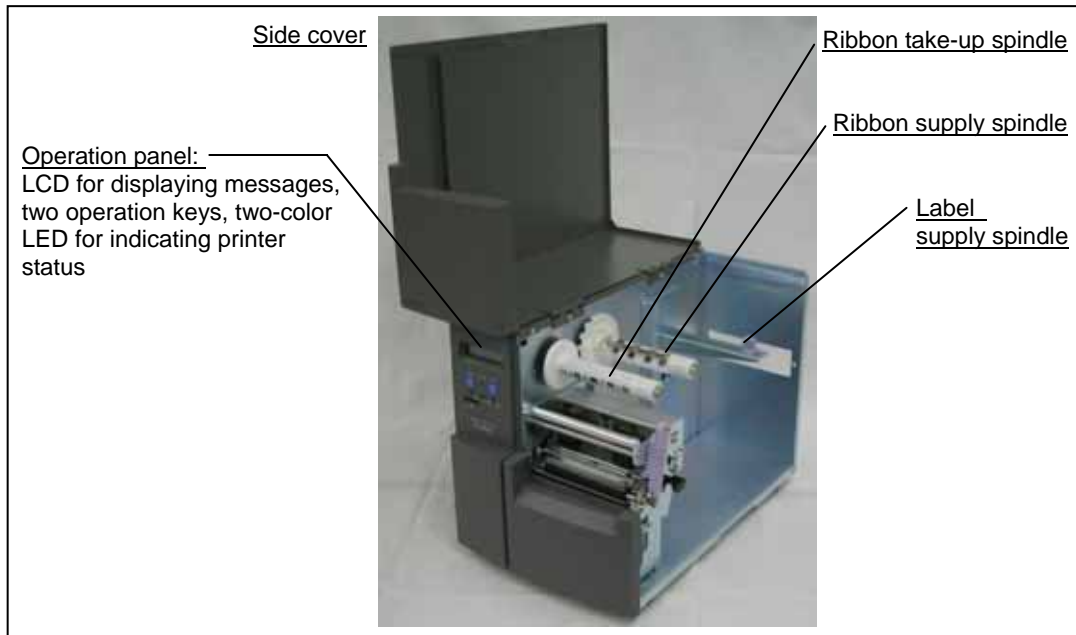
Box

Keep the box and cushioning material that protects the printer (2 pc. each for top and bottom).

When sending your printer for service, reuse the box and cushioning material.

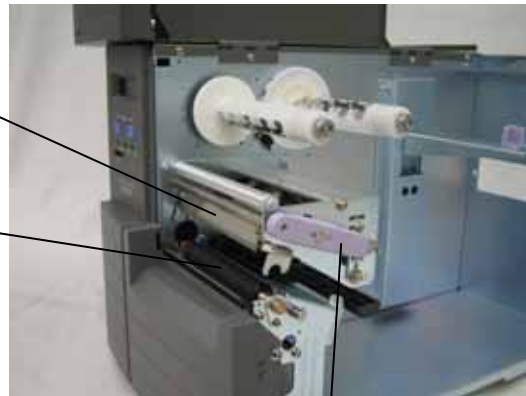


Names of parts





Label stopper
Secures the roll label



Thermal head (consumable part)

Prints data on the media

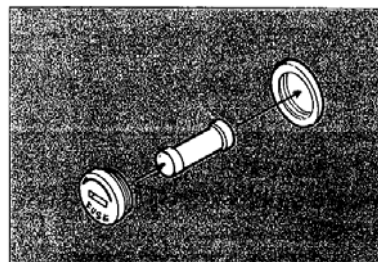
Platen roller (consumable part)

Discharges the printed media

Head lock lever

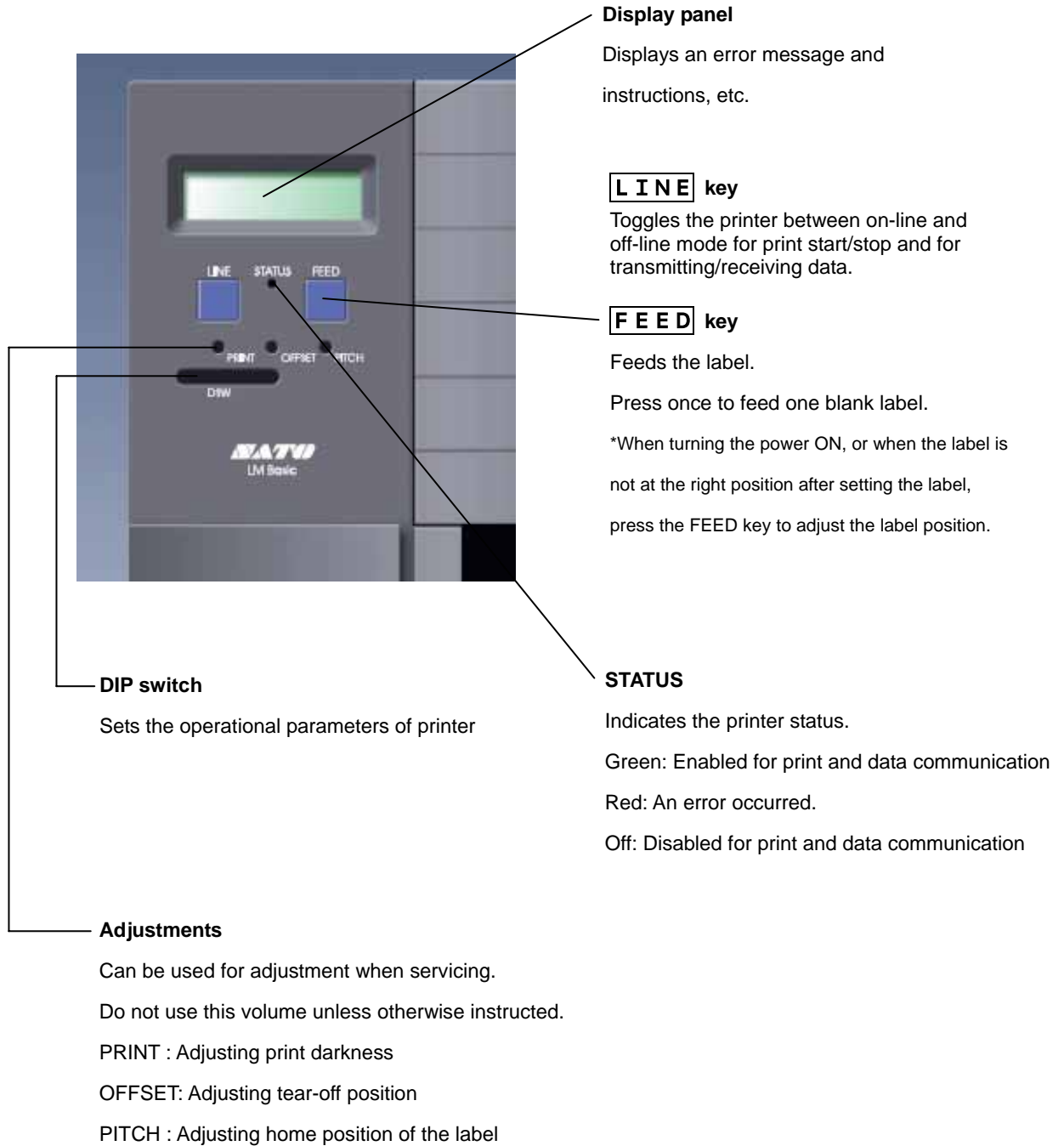
Fuse

When the current exceeding particular level runs through the printer, a fuse will be broken to protect the printer.

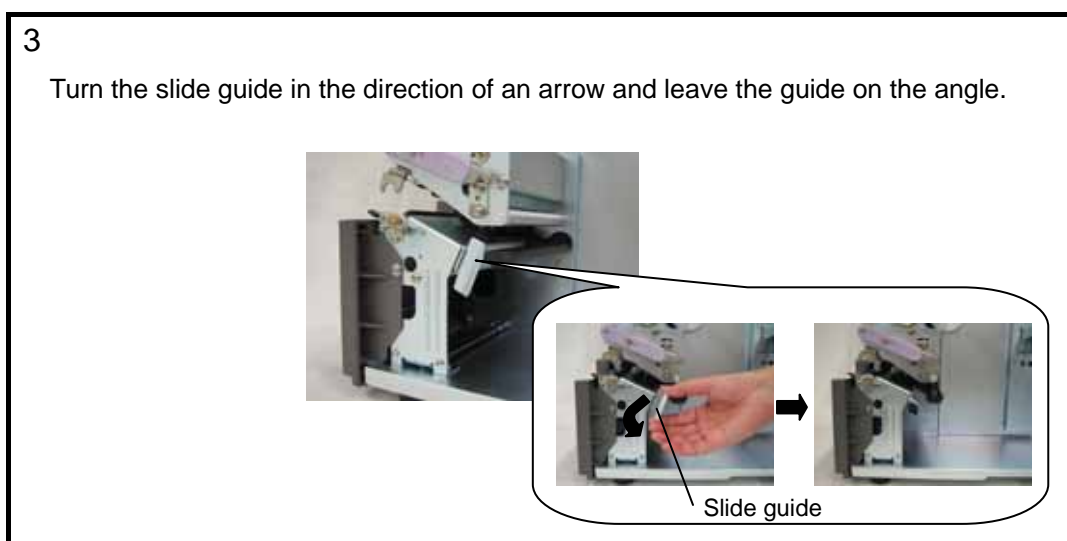
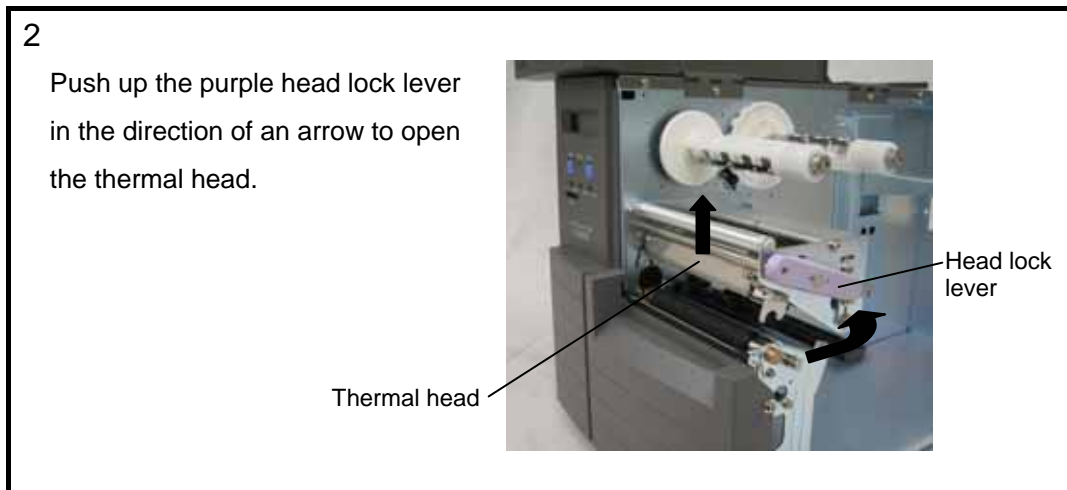


Operation Panel

Instructions and error messages are displayed in alphanumeric.

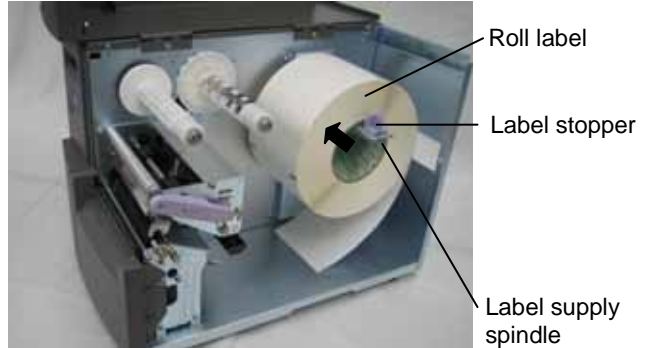


Setting roll label



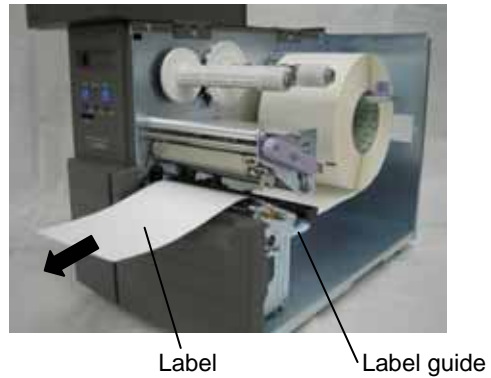
4


Place the roll label on the label supply spindle.
Slide the label stopper and adjust to the label width.



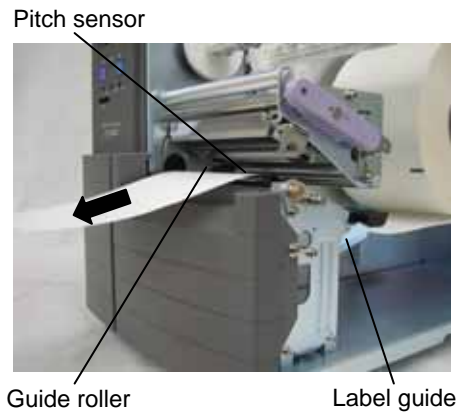
5

Thread the label under the label guide and pitch sensor.
Make sure that the side of label touches the guide roller slightly.



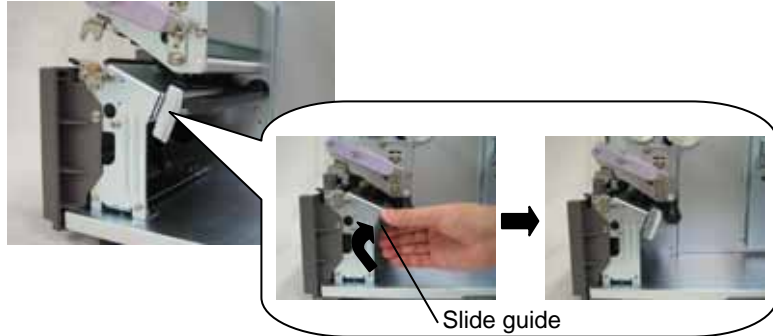
 Caution

*Thermal head and the surrounding areas will become hot during the printing process. When changing the label after printing, be careful not to get burnt.
*Contacting the edge of thermal head with bare hands may result in injury. When changing the labels, be careful not to get injured.



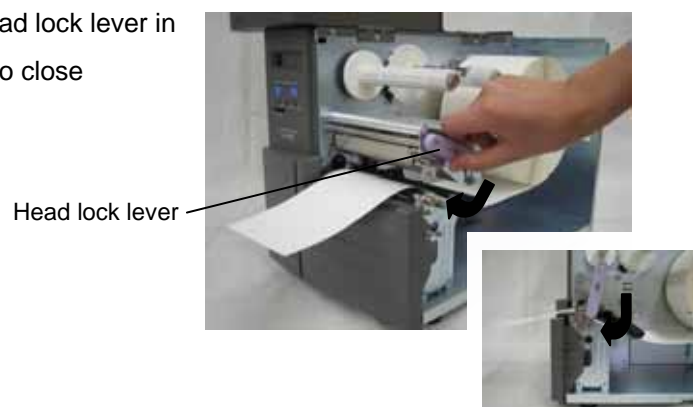
6

Turn the slide guide to vertical position and adjust the guide to touch the label front end slightly.



7

Push down the purple head lock lever in the direction of an arrow to close the thermal head.



8

Close the side cover.

 Caution

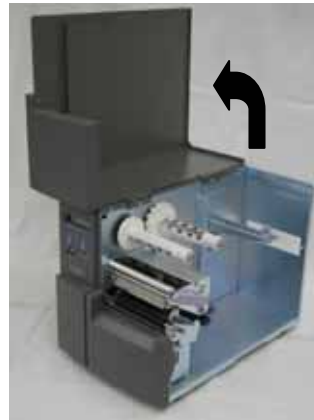
When closing the cover, be careful not to get your fingers caught in the cover.



Setting fan-fold label

1

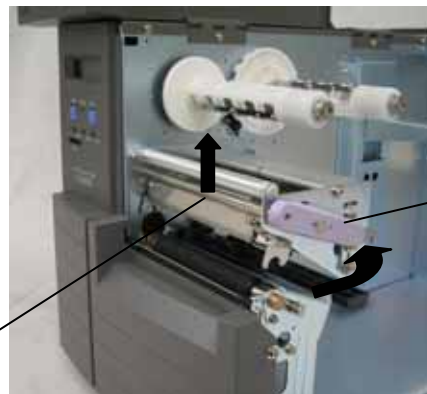
Open the side cover.
Push the nylon rivet from the inside of the printer and remove the cover for fan-fold opening.



Side cover

2

Push up the purple head lock lever in the direction of an arrow to open the thermal head.



Thermal head

Head lock lever

3

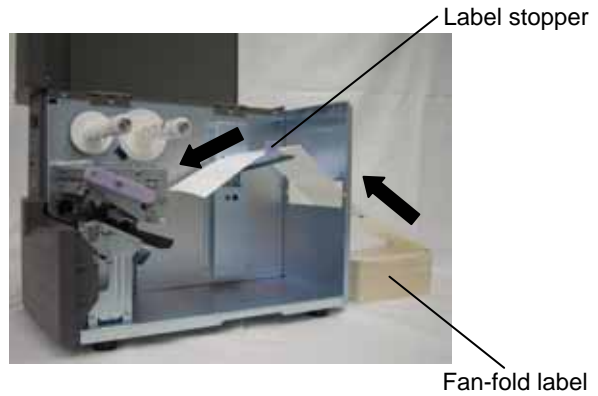
Turn the slide guide in the direction of an arrow and leave the guide on the angle.



Slide guide

4

Put the label through the fan-fold opening.
Slide and adjust the label stopper to touch the side of label slightly.



5

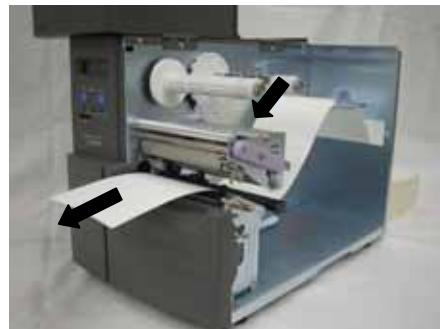
Thread the label under the label guide and pitch sensor.
Make sure that the side of label touches the guide roller slightly.



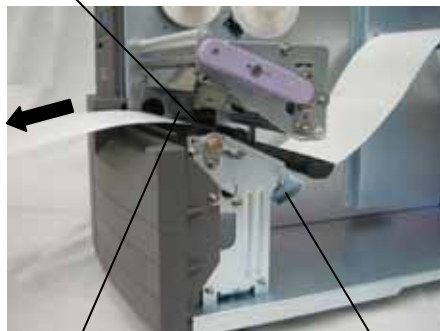
Caution

*Thermal head and the surrounding areas will become hot during the printing process. When changing the label after printing, be careful not to get burnt.

*Contacting the edge of thermal head with bare hands may result in injury. When changing the labels, be careful not to get injured.



Pitch sensor

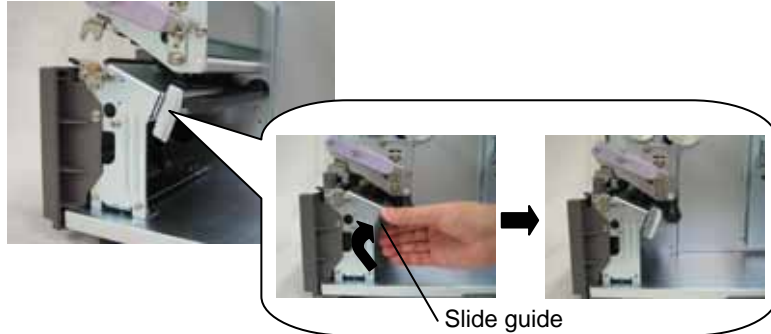


Guide roller

Label guide

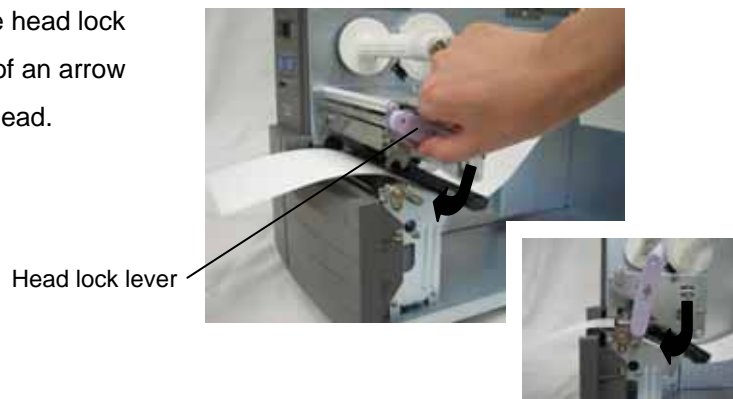
6

Turn the slide guide to vertical position and adjust the guide to touch the label front end slightly.



7

Push down the purple head lock lever in the direction of an arrow to close the thermal head.



8

Close the side cover.



Caution

When closing the cover, be careful not to get your fingers caught in the cover.



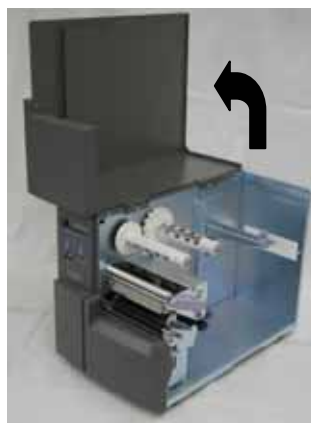
Setting carbon ribbon

Use only SATO carbon ribbons.

Use of other than approved carbon ribbons may result in unsatisfactory print quality and/or damage to the print head and may void your warranty.

1

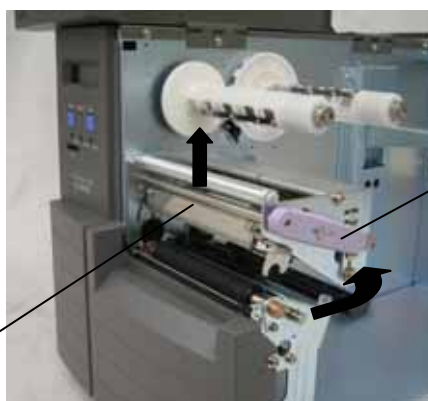
Open the side cover.



Side cover

2

Push up the purple head lock lever in the direction of an arrow to open the thermal head.

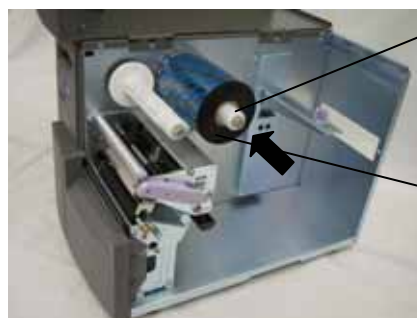


Thermal head

Head lock lever

3

Place the carbon ribbon on the ribbon supply spindle and push the ribbon roll all the way to the inside of the printer. (Confirm winding direction)



Ribbon supply spindle

Carbon ribbon

4

Place an empty ribbon core on the ribbon take-up spindle.



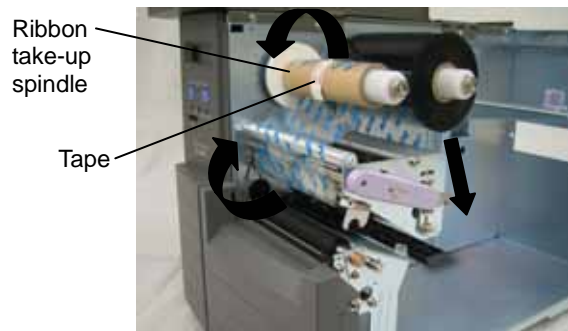
Ribbon core

5

From the ribbon supply spindle, thread the carbon ribbon under the thermal head and to the ribbon take-up spindle.

Tape the free end of carbon ribbon to the ribbon core, and wind a few times in the direction of an arrow.

Be sure to confirm that the carbon ribbon is set as shown in the picture on the right.



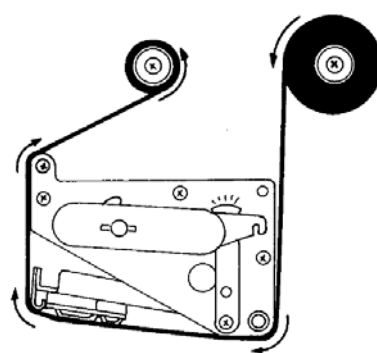
Caution

*Thermal head and the surrounding areas will become hot during the printing process.

When changing the labels after printing, be careful not to get burnt.

*Contacting the edge of thermal head with bare hands may result in injury.

When changing the labels, be careful not to get injured.

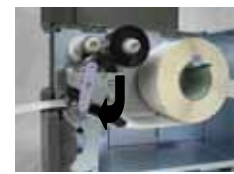


6

Push down the purple head lock lever in the direction of an arrow to close the head.



Head lock lever



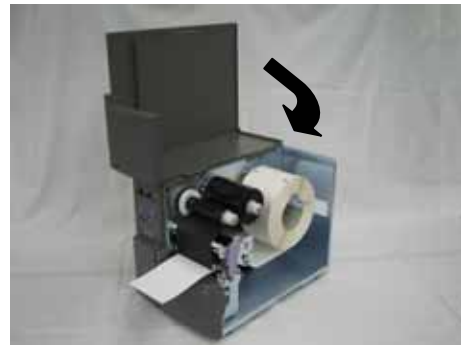
7

Close the side cover.



Caution

When closing the cover, be careful not to get your fingers caught in the cover.



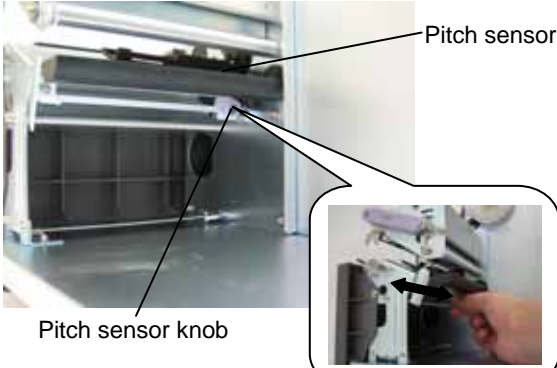
Adjusting Pitch Sensor

1
Open the side cover.



Side cover


2
To adjust the pitch sensor position,
Slide the green pitch sensor knob
at the far end of the slide guide.
It is located at the backmost (on the
sensor frame side).



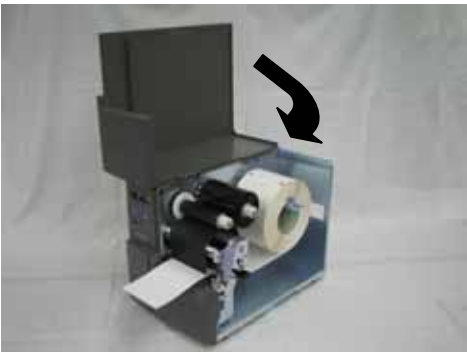
Pitch sensor

Pitch sensor knob

3
Close the side cover.

 Caution

When closing the cover, please
be careful not to get your fingers
caught in the cover.



Turning on Power

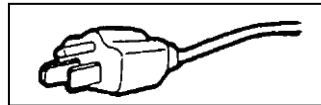
Connect the power cord and turn on the printer.

Power supply

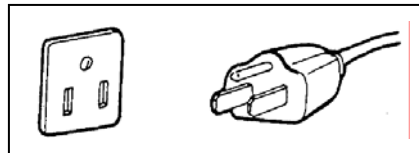
After installing the printer, connect the power cord as instructed below.

Power cord and power outlet

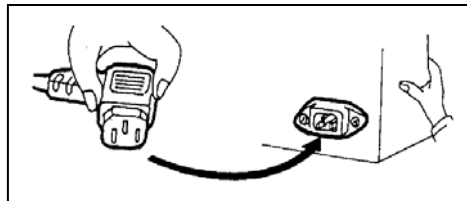
As shown in this picture, included power cord has three contacts.



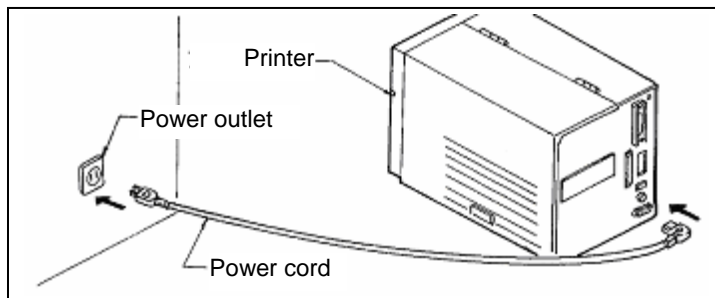
The socket has three contacts; the third one is connected to a ground for safety. If your power outlet has three slots, plug in the power cord as it is.



To connect the power cord to the printer, be sure to confirm the top/bottom of plug. When connecting the power cord, use the other hand to secure the printer.



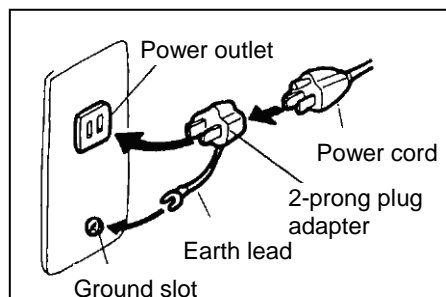
Connect the power cord into the printer first, and then plug the other end into the power outlet.



If your power outlet has two slots, use a 3- to 2-prong adapter.

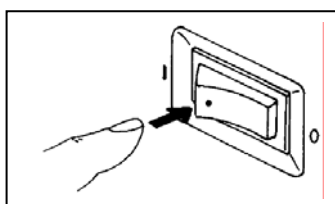
Warning

Connect the earth lead to the ground slot.
Failure to do so may cause electric shock.

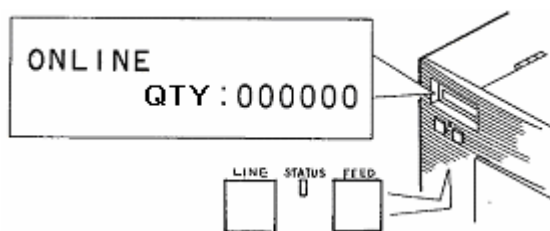


Turning the power ON

Press the power switch to the direction of [I].



When the printer is turned on, a [ONLINE] message will be displayed on the LCD panel.



Caution

Do not operate the power switch or plug-in/unplug the power cord with wet hands.
This may cause electric shock.

LM400e Series specifications

Model:	LM408e / LM412e	
Print method:	Thermal transfer / Direct thermal	
Print resolution:	203/305dpi	8 dots mm/12 dots mm
Media size:	Max. 128mm	Width (including backing liner 131mm)
Printable area:	Max. 104mm width / Max. pitch 178mm	
Max. print speed:	6 inch/s (approximately 150mm/sec)	
Dimensions:	W271 x D430 x H321mm (Standard) 13kg (Standard)	
Roll media:	Max. external diameter 8 inch (150m/roll) Face in, 3 inch roll	
Fan-fold:	Max. folded height 100mm, Feeding the fan-fold externally	
Sensor type:	Toggles sensor between Reflective sensor/Transmissive sensor,	
Carbon ribbon:	450m/roll Note) Carbon ribbon width needs to be wider than media width.	
Power:	110-220VAC±10% 50/60Hz±1%	
Environment:	Operating	5 to 40 degrees C
	Storage	-20 to 40 degrees C
	Humidity	30 to 85% Non-condensing



Q01471000